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Hardee

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(54) **VOLTAGE DOWN CONVERTER WITH SWITCHED HYSTERESIS**(75) Inventor: **Kim C. Hardee**, Colorado Springs, CO (US)(73) Assignee: **United Microelectronics, Corp.**, San Francisco, CA (US)

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(57)

ABSTRACT

A voltage down converter with hysteresis generator combining a hysteresis signal to a reference voltage and an output voltage feedback signal applied to a comparator. The hysteresis generator is coupled to a control signal giving advance notice of when a high current load is to be activated. The hysteresis signal is switched to a first state prior to the high current load activation, and switched to a second state after the high current load activation. In the first state, the hysteresis voltage is added to a reference voltage. In the second state, the hysteresis voltage is added to the voltage output feedback signal.

8 Claims, 4 Drawing Sheets